

treating operation makes the metallic or non-metallic alkoxide to be changed into a metallic oxide. In this way, a metallic or non-metallic oxide-coated active material is prepared.

Please replace the paragraph on page 5, line 6, beginning with "The metallic oxide formed on the surface" as follows:

The metallic or non-metallic oxide formed on the surface of the power may be derived from the single metallic or non-metallic alkoxide source or the composite sources of manganese of lithiated transition metal compound and metallic or non-metallic alkoxide. The thickness of the metallic oxide layer reaches up to 1 to 100nm and the quantity of metal content is ranged from 1.0 to 10 weight percent of the metallic oxide.

#### IN THE CLAIMS

Please amend the claims as follows:

An appendix of this response contains the versions of the claims marked to show the changes made. This appendix is called "Version With Markings To Show Changes Made."

These amendments introduce no new matter into the claims. The addition to Claim 1 beginning at line 9 and the addition to Claim 5 beginning at line 10 are supported in the Specification as filed, page 4, lines 4-7.

1. (Amended) A positive active material for rechargeable lithium batteries, the positive active material comprising:  
an active material component processed from a manganese-based compound, the manganese-based compound being selected from the group consisting of  $\text{Li}_x\text{MnO}_2$ ,  $\text{Li}_x\text{MnF}_2$ ,  $\text{Li}_x\text{MnS}_2$ ,  $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_2$ ,  $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{F}_z$ ,  $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{S}_z$ ,  $\text{Li}_x\text{Mn}_2\text{O}_4$ ,  $\text{Li}_x\text{Mn}_2\text{F}_4$ ,

$\text{Li}_x\text{Mn}_2\text{S}_4$ ,  $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$ ,  $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_{4-z}\text{F}_z$ , and  $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_{4-z}\text{S}_z$ , where  $0 < x < 1.5$ ,  $0.05 \leq y \leq 0.3$ ,  $z \leq 1.0$  and M is selected from the group consisting of Al, Co, Cr, Mg, Fe and La; and

a metallic oxide or non-metallic oxide coated on the active material component, the metallic oxide being selected from the group consisting of Mg, Al, Co, K, Na, Ca, Ti and Sr, and the non-metallic oxide comprising Si.

2. (Amended) The positive active material of claim 1 wherein the metallic oxide has a metal selected from the group consisting of Mg, Ti and Al, and the non-metallic oxide has a non-metal comprising Si.

3. (Amended) The positive active material of claim 1 wherein the oxide has a thickness range of 1–1000 nm.

4. (Amended) The positive active material of claim 1 wherein the quantity of metal or non-metal content is a range of 1 to 10 weight percent of the oxide.

5. (Amended) A method of preparing a positive active material for rechargeable lithium batteries, the method comprising the steps of:

obtaining a powder from a source material, the source material being selected from the group consisting of  $\text{Li}_x\text{MnO}_2$ ,  $\text{Li}_x\text{MnF}_2$ ,  $\text{Li}_x\text{MnS}_2$ ,  $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_2$ ,  $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{F}_z$ ,  $\text{Li}_x\text{Mn}_{1-y}\text{M}_y\text{O}_{2-z}\text{S}_z$ ,  $\text{Li}_x\text{Mn}_2\text{O}_4$ ,  $\text{Li}_x\text{Mn}_2\text{F}_4$ ,  $\text{Li}_x\text{Mn}_2\text{S}_4$ ,  $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_4$ ,  $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_{4-z}\text{F}_z$ , and  $\text{Li}_x\text{Mn}_{2-y}\text{M}_y\text{O}_{4-z}\text{S}_z$ , where  $0 < x < 1.5$ ,  $0.05 \leq y \leq 0.3$ ,  $z \leq 1.0$  and M is selected from the group consisting of Al, Co, Cr, Mg, Fe and La; and

coating the powder with a metallic alkoxide solution or a non-metallic alkoxide solution to make an alkoxide-coated powder, the metallic alkoxide solution being selected from the group consisting of Mg-alkoxide, Al-alkoxide, Co-alkoxide, K-

alkoxide, Na-alkoxide, Ca-alkoxide, Ti-alkoxide and Sr-alkoxide, and the non-metallic alkoxide solution comprising Si-alkoxide; and

heat-treating the alkoxide-coated powder such that the alkoxide-coated powder is changed into an oxide-coated powder.

6. (Amended) The method of claim 5 wherein the alkoxide solution is selected from the group consisting of Si-alkoxide, Mg-alkoxide, Ti-alkoxide and Al-alkoxide.

7. (Amended) The method of claim 5 wherein the alkoxide solution contains 1 to 50 weight percent of the metal or the non-metal.

8. (Amended) The method of claim 5 wherein the heat-treating step is performed at a temperature range of 200 to 1000°C for 1 to 20 hours.